

DOUBLE FLANK WORM GEAR MECHANISM

ABSTRACT

5 A worm/worm gear assembly comprises a worm having teeth defined
by at least one thread disposed thereon and a worm gear having teeth protruding from
a surface thereof. At least one of the worm and the worm gear is fabricated from a
resilient material. The teeth of the worm and the teeth of the worm gear are
interengaged and in a compressive relationship with each other to maintain double
10 flank contact therebetween. At low- or no-load conditions, the double flank contact is
made at the opposing outer edges of each of the teeth. At moderate-load conditions,
the contact extends from the opposing outer edges of each of the teeth toward the
center of each of the teeth. A method for delashing a gear system comprises disposing
the worm in mechanical communication with the worm gear and loading the worm
15 gear to cause the worm gear to compressively engage the worm.